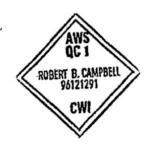
QW-482 SUGGESTED FORMAT FOR WELDING PROCEDURE SPECIFICATIONS (WPS) (See QW-200.1, Section IX, ASME Boiler and Pressure Vessel Code)

Company Name Incodema	BY DAMESIMAPTIN
Welding Procedure Specification No. 33/3/4 Date	Supporting POR No.(s) TNC 1
	,
1101101110	
CTAIL	MANUA
Welding Process(es) GTAW.	Type(s) (Automatic, Manual, Machine, or Sami-Automatic)
	(Adjusted, Marion, Indiana, and Adjusted
Joints (QW-402) GroovE	Details
Joint Design Groove	
Backing: Yes No	.,
Backing Material (Type)	_AS7
(Refer to both backing and retainers)	COVER PASS
☐ Metal ☐ Nonfusing Metal	a IET
☐ Nonmetallic ☐ Other	COV KOASS
Sketches, Production Drawings, Weld Symbols, or Written Description ;	Pro (
should show the general arrangement of the parts to be welded. Where	140
applicable, the root spacing and the details of weld groove may be	
specified.	77
(At the option of the Manufacturer, sketches may be attached to illustrate	4 - 41 -
joint design, weld layers, and bead sequence (e.g., for notch toughness	MG CAP & LAND
procedures, for multiple process procedures, etc.))	116
*BASE METALS (QW-403)	
Group No.	P-No Group No
OB Could	11 (
OR Specification Type and Grade 304 Strain less	Schedule 40 1 10 pipe
to Specification Type and Grade	
OR	
Chem. Analysis and Mech. Prop.	
to Chem. Analysis and Mech. Prop.	
Thickness Range: , 140	Fillet
Other ————————————————————————————————————	
*FILLER METALS (QW-4Q4)	
Sone No (SEA) 5.9	
AWS No. (Class) A 5.9	
F-No. 6	
A-No	
Size of Filler Metals // Co 1//C	308 L
Weld Metal	
1	
Thickness Range:	
Fillet	
Electrode-Flux (Class)	
Flux Trade Name	
Consumable insert	
Other	
Otto	

^{*}Each base metal-filler metal combination should be recorded individually.



QW-482 (Back)

						WPS No		1101.		
POSITIONS (11 C			POSTWELD HEAT TREATMENT (QW-407)					
Position(s) o	f Groove	1X G			Temperature Range					
	Welding Progression: Up Down					Time Range				
Position(s) o	rriilet				GAS (QW-408)					
PREHEAT (QV	V-406)		20				Percent Com	1		
Preheat Tem	V-406) perature, Minin	num/	750	0		Gas(es)	(Mixtu			
Interpass Ter	mperature, Max	imim	130		Shielding	AR600	1001/2	25 CFH		
	or special heating		cable, should b	e recorded)	Trailing	7				
(contineous	or opcom noun				Backing					
ELECTRICAL C Current AC of Amps (Flang (Amps and position, tabular for Tungsten Ele Mode of Mel Electrode Wi TECHNIQUE (String or We Orifice or Ga Initial and Ini- Method of B Oscillation — Contact Tube Multiple or S Multiple or S Travel Speed Peening — Other —	CHARACTERIST or DC	CICS (QW-409) Por	# 6 inding, etc.) — A MANUA	ectrode siza, pe listed in a	(Spray Arc, Sha	Volt Range 10-15				
,										
				L				L		

QW-482 SUGGESTED FORMAT FOR WELDING PROCEDURE SPECIFICATION (WPS)
(See QW-201.1, Section IX, ASME Boiler and Pressure Vessel Code)

T. 0	dema		Du Dal	ent B Cam	stell CWI
					INC4
Welding Procedure Specification N	No. 35/2/4	Date:		PQR No.(s)	4004
Revision No.		Dat			
Welding Process(es) GT/	40	Туре	(5) Man	Val	achine or Semi-Automatic)
JOINTS (QW-402)				Detail:	
Joint Design Groot	/e				
Root Spading 7/6					15
	(No) X	r	-) (
Backing Material (Type)	(refer to both backing and	retainers)			/41
Metal	Nonfusing Metal	- Lamery	V		~
	Other ·	,	(YMIOL TITUE) A DE	FIG S (CORNER	JOINT) FIG C (EDGE JOINT)
					•
Sketches, Production Drawings, W	Veld Symbols or Written D	escription			_
should show the general arranger	nent of the parts to be we	ided. Where			
applicable, the root spacing and the	he details of weld groove	may be	- CONTRACT		The state of the s
specified.					
(At the option of the manufacture	r, sketches may be attach	ed to illustrate			
joint design, weld layers and bead	d sequence (e.g., for notch	toughness	FIG D (LAP X	TATO	FIG E (TEE JOINT)
procedures, for multiple process p	procedures etc.)]		7, 0 (Dir 2)	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Other (Describe)					
	☐ Figure A ☐	Figure B □ Figure	e C 🗌 Figure D 🔲	Figure E	
*BASE METALS (QW-403)			0		
P-No8	Group No.	to P-No.	8	Group No.	
OR	_			, , , ,	
Specification type/grade or UN	S number 3	044 2	"ριρα <u>Sc</u>	(relule 5	70
to Specification type/grade or	UNS number				
OR					
Chem. Analysis and Mech. Pro	p .				
to Chem. Analysis and Mech. P	Prop.				
Thickness Range:			,		
Base Metal: Groot	ve		Fillet		
Other	-				
Maximum Pass Thickness ≤ 1/2 Ir	nch (13 mm) (Yes)	☐ (No)			
TETT LED METALC (OM 404)	•				
*FILLER METALS (QW-404) Spec. No. (SFA)	5.9	2		3	1
AWS No. (Class)	3087				
F-No.	6				1
A-No.					
Size of Filler Metals	1/16				
Filler Metal Product Form					
Supplemental Filler Metal Weld Metal					
Thickness Range:	.125313				
Groove	1,23 1312				-
Fillet					
Electrode-Flux (Class)					
Flux Type	_				
Flux Trade Name Consumable Insert					
Other	 				
				17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	

^{*}Each base metal-filler metal combination should be recorded individually.

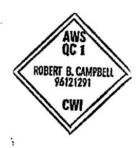
QW-482 (Back)

							WPS No.		Rev		
Position(s Welding P Position(s	(QW-405) of Groove rogression:		Down		POST WELD HEAT TREATMENT (QW-407) Temperature Range Time Range Other						
Other _					_	CAE	(OW-408)				
PREHEAT (QW-406) Preheat Temperature, Minimum Interpass Temperature Maximum Preheat Maintenance							Gas (QW-408) Percent Composition Gas(es) (Mixture) Shielding Argon 100% Trailing Backing Arson 100%				
Other	(Continuou	as or special heating whe	re applicable should be	e recorded)		Other	r ————————————————————————————————————	75-1	00% SCFH		
ELECTRICA	L CHARACTI	ERISTICS (QW-4	09)								
Weld Pass(es)	Process GTAW	Classification	Diameter.	Type and Polarity DCEM DCEN	Ampera Rang 80-/6	e 25	Voltage Range	Travel Speed Range 3-7-12-15-1	Other (e.g., Remarks, Com- ments, Hot Wire Addition, Technique, Torch Angle, Etc.)		
-	0,770			2				····			
						-					
				-							
	1	- 41-1									
						-			 		
						1					
					J						
Amperage and voltage range should be recorded for each electrode size, position, and thickness, etc. Pulsing Current											
Electrode	e Wire feed sp	eed range	NA								
Other											
String or W	E (QW-410) leave Bead	Strie	1 j								
	Sas Cup Size	ning (Brushing, Gr	Inding etc \	tiller	Brus	,					
	Back Gouging		//	Wire	10,03						
Osciliation		NI	4				,				
	be to Work Di		N/A								
	Single Pass (p		Multip	1/5							
Electrode S	Single Electro	oes	3175/8								
Peening	pacing										
Other											

QW-482 SUGGESTED FORMAT FOR WELDING PROCEDURE SPECIFICATIONS (WPS) (See QW-200.1, Section IX, ASME Boiler and Pressure Vessel Code)

5-0-1		0-1 1	Parinolds
Company Name FricodeMA		By Richard	reynules
Welding Procedure Specification No. 5512	4 Date	Support	ing PQR No.(s) INC .1
2 1		11. "	100
Welding Process(es) GTAW.		Type(s) MANG	iai .
Welding Frocessios		(Auton	natic, Manual, Machine, or Semi-Automatic)
JOINTS (QW-402)			Details
Joint Design GYOUVE			
Backing: Yes No			
Backing Material (Type)	backing and retainers)		
(Hoter to poru	backing and rolainers)	101101 1	PASS
☐ Metal ☐ Nonfusing Metal		cover F	1,-5
☐ Nonmetallic ☐ Other		ROOT PA	\$5
Sketches, Production Drawings, Weld Symb		N. 5	
should show the general arrangement of the	parts to be welded. Where		
applicable, the root spacing and the detail	Is of weld groove may be		
specified.			77
(At the option of the Manufacturer, sketches m			
joint design, weld layers, and bead sequence		. GO GAP &	1-15 620
procedures, for multiple process procedures, et	C.))	. Co Gup &	LAND . 630
*BASE METALS (QW-403)			
P-No. Group No.	to 1	P-No	Group No
OR			
Specification Type and Grade			
to Specification Type and Grade			
OR			
Chem. Analysis and Mech. Prop			
to Chem. Analysis and Mech. Prop.			
Thickness Range: Base Metal: Groove	••	Fillet	
Base Metal: Groove		Fillet	
Other			
ACULED METALS (ON 404)	T	· I	
*FILLER METALS (QW-404) 5 . 9			
Spec. No. (SFA)			
Spec. No. (SFA) AWS No. (Class) F-No.			
A-No			
Size of Filler Metals	.CleO		
Weld Metal			
Thirkness Sange			
Groove ,140			
Fillet			
Electrode-Flux (Class)			
Flux Trade Name	ļ		
Consumable Insert			
Other	 		

^{*}Each base metal-filler metal combination should be recorded individually.



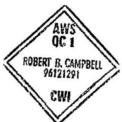
QW-482 (Back)

						WPS No		Rev. ————
Welding Pro	of Groove	SIX G	Down		POSTWELD HEAT TREATMENT (QW-407) Temperature Range Time Range			
	V-406)		20		GAS (QW-408)	Gas(es)	Percent Com	
Preheat Mai	ntenance				Shielding	ARCON		
(Continuous	or special heati	ng, where appli	cable, should b	e recorded)	Trailing Backing			
Current AC or DC Polarity Straight Amps (Range) O - 120 Volts (Range) (Amps and volts range should be recorded for each electrode size, position, and thickness, etc. This information may be listed in a tabular form similar to that shown below.)								
Tungsten Ele	ectrode Size an	d Type 2	/6	3/32"		The interest at a l		
Mode of Me	tal Transfer for	GMAW				2% Thoristed, etc.)		
		Range			11 FOLES C. S. F. VOLGET C. C. C. C. C.	Circuiting Arc, etc.)		
String or We Orifice or Ga Initial and In Method of B Oscillation - Contact Tubi Multiple or S Multiple or S	TECHNIQUE (QW-410) String or Weave Bead Orifice or Gas Cup Size Initial end Interpass Cleaning (Brushing, Grinding, etc.) Method of Back Gouging Oscillation Contact Tube to Work Distance Multiple or Single Pass (Per Side) Multiple or Single Electrodes							
Peening								
Other								
		Filler	Metal	Cus	rrent			
Weld Layer(s)	Process	Class	Diameter	Type/ Polarity	Amp Range	Volt Range	Travel Speed Range	Other (e.g., Remarks, Com- ments, Hot Wire Addition, Technique, Torch Angle, etc.)
500+	GHOW	308 L	.060	DOSP	80,150	10-15	\$5.10 Ipm	
Cover	CHAN	3082	.000	TXSP	80-120	10-15	5-10 Ipm	
							0.00	

QW-483 SUGGESTED FORMAT FOR PROCEDURE QUALIFICATION RECORDS (PQR) (See QW-200.2, Section IX, ASME Boiler and Pressure Vessel Code) Record Actual Conditions Used to Weld Test Coupon

Company Name INCODEMA	
Procedure Qualification Record No. — 7 NC 1	Date 6- 24
WPS No. \$5 1214 \$5	
Welding Process(es) GTAW	
Types (Manual, Automatic, Semi-Automatic) MANUAL	
JOINTS (QW-402)	
POOT PRSS	
POST PRSS	÷
T.	
LAND	
LAND	
Groove Desig	n of Test Coupon
BASE METALS (QW-403)	nickness shall be recorded for each filler metal or process used.)
	POSTWELD HEAT TREATMENT (QW-407) Temperature
Material Spec. Type or Grade	Time
P-No. 8 to P-No. 140	Other
011	
Didirected of least cooperation	
Other	CAS (OM AND)
	GAS (QW-408) Percent Composition
	Gas(es) (Mixture) Flow Rate
	Shielding ARISON 10070 25 CFM
	Trailing
FILLER METALS (QW-404) 5.9 SFA Specification5.9	Backing
AWS Classification A 5. 9	ELECTRICAL CHARACTERISTICS (QW-409)
Filler Metal F-No.	Current DC
Weld Metal Analysis A-No.	Polarity 5 trackt
Size of Filler Metal C/CoO	Amps. 80-120 Volts 10-15 Tungsten Flectrode Size 3/32
Other	Authorities and the second of
Weld Metal Thickness	Other
POSITION (QW-405) SIX G-	TECHNIQUE (QW-410) 5- JO IPM
Position of Groove	
Weld Progression (Uphill, Downhill) uphill	String or Weave Bead String
Out -	Oscillation
	Single or Multiple Electrodes
PREHEAT (QW-406) Preheat Temperature 7.2°	Other
754	
Interpass Temperature 730	
Other	

11/06



QW-483 (Back)

PQR No.			
---------	--	--	--

			Tensi	le Test	(QW-1	50}	PC	R No		
Specimen No.	Width	Thick	ness	Total L		Ultimate Total Load, Ib	Unit S	Ultimate Unit Stress, F		
	1									
		<u>.</u>								
					_					
			Guided-E	Send Te	ests (Q\	N-160)				
******	Type and	Figure No.					Resul	1		
					,			•		
					L					
			Toughn	ess Tes	ts (QW				~-	
Specimen	Notch	Specimen	Test			Impact Values		,		
No.	Location	Size	Temperature	- f	t-lb	% Shear	Mils	Drop Weight Break (Y/N		
		-	├ ──			ļ				
								 		
				-					-	
			ļ	-						
			ļ							
	10.4 1			-						
						-				
				+-						
		I						<u> </u>		
nments						***************************************				
			Fillet-W	eld Te	st (QW-	-180)				
					_					
ult Satisfactory	: Yes	No			_ Penetra	tion into Parent A	Aetal: Yes		No	
cro — Results									•	
				Other 1	Tacte					
					100000000000000000000000000000000000000					
e of Test							-			
osit Analysis										
er					~					
				<u> </u>		Clock No		St	amp No	
der's Name						Laborat	ory Test No.			
der's Name s Conducted by _						prepared welder	and tested i	n accordan	e with the	
s Conducted by _ certify that the sta	tements in this r	ecord are corre	ect and that th			prepareu, werdet	,	ii dovordon	20 WILLI (170	
s Conducted by _	tements in this r	ecord are corre	ect and that th	ESSEL (CODE.	prepared, welder				
s Conducted by _ certify that the sta irements of Secti	ntements in this r	ecord are corre	ect and that th O PRESSURE \	/ESSEL (CODE. ufacturer					
s Conducted by _ certify that the sta	tements in this r	ecord are corre	ect and that th O PRESSURE \	/ESSEL (CODE. ufacturer B	У	***************************************			

QW-483 SUGGESTED FORMAT FOR PROCEDURE QUALIFICATION RECORDS (PQR)
(See QW-200.2, Section IX, ASME Boller and Pressure Vessel Code)
Record Actual Conditions Used to Weld Test Coupon

Company Name In Conserva

Procedure Qualification Record No.

DNC-| Date 6/24/2010

WPS No. 55/2/4

Welding Process (es)

Types (Manual, Automatic, Semi-Automatic)

MANUAL

JOINTS (QW-402)

Groove Design of Test Coupon (sketch, figure or reference)

(For combination qualifications, the deposited weld metal thickness shall be recorded for each filler metal and process used.)

(For combination qualifications, the deposited weld metal thickness shall be re	corded for each filler metal and process used.)
BASE METALS (QW-403) Material Specification	POST WELD HEAT TREATMENT (QW-407) Temperature
Type or Grade or UNS Number 30 4 6	Time
P No. 8 Group No. to P No. 8 Group No.	Other
Thickness of Test Coupon . 140	
Diameter of Test Coupon 2"	
Maximum Pass Thickness	Con-
Other	
Other	GAS (QW-408)
ATTER TO A STATE OF THE STATE O	Percent Composition
FILLER METALS (QW-404)	Gas (es) (Mixture) Flow Rate
Layer (combination welds) 1 2 3	Shielding (Arson 100% 25 CFH
SFA Specification 5.9	Trailing (
AWS Classification 3084	Backing Argon 100% SCFH
Filler Metal F No.	Other
Weld Metal Analysis A No.	Other
Size of Filler Metal Y/6	
Filer Metal Product Form	ELECTRICAL CHARACTERISTICS (QW-409)
Supplemental Filler Metal	
	N. W.
Electrode Flux Classification	Polarity EN Volts
Flux Type	
Flux Trade Name	Tungsten Electrode Size 3/3 2.
Weld Metal Thickness	Transfer Mode for GMAW (FCAW)
Other	Other
BARTAN AND ART	
POSITION (QW-405) Position of Groove 6 G	TECHNIQUE (QW-410)
Position of Groove 6 G	
Weld Progression (Uphili, Downhill) Uphili	Travel Speed 3-7 IPM
Other	
	String or Weave Bead Strifs
	Oscillation
PREHEAT (QW-406) Preheat Temperature 72°	Multipass or Singles Pass (per side) Mutipas
Transact rumparatara	Single or Multiple Electrodes Single
Interpass Temperature 7500	Other
Other	1 1111111111111111111111111111111111111
30.000 22 20.000	2

			*		QW-483 (Back)			PQR No.			
Specimen Number	Widt	h T	hickness	Tens	Area	1	Jitimate otal Load	Ultimate Unit Stress (psl or MPa)	Type of Failur & Location		
	.749	3	1409		1087	9	490	87.5 KS	1 Well neta		
	.749		356		046	9,	214	88.0	Well Meta		
				Guided	Bend Tests (Q	W-160)					
FACT DE		nd Figure N	0.				A.\$ 5	sult			
FACE #2					 -	Pa	35				
ROOT FI						Pa	55				
ROOT # 2						P	33				
				Tough	ness Tests (QV	V-170)					
Specimen	Notch	Specimer		est		Impact Values Drop Weight Bre					
Number	Location	Size	Tempe	erature	Ft-lb or J	% Shear	Mils (ir	i.) or mm	(Yes/No)		
							-				
							"				
							-		*******		
							 				
			1		L	<u>. </u>	1 100000				
comments _		_									
				Fillet	Weld Test (QV	(-18G)					
esult- Satisfacto	ry: Yes		No		Penetration into	Parent Metal:	Yes	No			
lacro - Results							200000				
	(2				Other Tests						
					21.00 1000						
ype of Test	_										

We certify that statements made in this record are correct and that the test welds were prepared, welded, and tested in accordance with the Requirements of Section IX of the ASME Boiler and Pressure Vessel Code

Manufacturer or Contractor

Jim Andrews CWI

Laboratory Test Number

Stamp No.

2010052498

Clock No.

(Detail of record of tests are Illustrative only and may be modified to conform to the type and number of tests required by the code.)

Other

Welders Name

Tests Conducted by

6 /28 /2010 Certified By

QW-484A – SUGGESTED FORMAT A FOR WELDER PERFORMANCE QUALIFICATIONS (WPQ) (See,QW-301, Section IX, ASME Boller and Pressure Vessel Code)) Keynolds Identification No. Welders Name **Test Description** 55/2/ Test Coupon Production weld Identification of WPS followed Thickness: Specification and type/grade or UNS number of base metal(s) Testing Conditions and Qualification Limits Range qualified Actual values Welding Variables (QW-350) TAW Welding process (es) manua Type (i.e., manual, semi-automatic) used WITGOUT Backing (with/without, metal, weld metal, double-welded, etc.) 7// -6" Pipe (enter diameter, if pipe or tube) to Base metal P- or S-Number to P-or S-Number Filler metal or electrode specification(s) (SFA) (info only) 3086 Filler metal or electrode dassification(s) (Info only) 6 Filler metal F-Number(s) NO NO Consumable Insert (GTAW or PAW) 0/12 Filler type (solid/metal or flux cored/powder (GTAW or PAW) 50% Deposit thickness for each process Process 1: GTAW
Process 2: GTAW 3 layers minimum ☐ Yes No. ☐ Yes **⊠** No 3 layers minimum 66 Position qualified (2G, 6G, 3F, etc.) UPKILL Vertical progression (uphill or downhill) Type of fuel gas (OFW) Inert gas backing (GTAW, PAW, GMAW) Transfer mode (spray/globular or pulse to short circuit -GMAW) DC EN DCEN GTAW current type/polarity (AC, DCEP, DCEN) RESULTS HCCEPT Visual Examination of Completed Weld (QW-302.4) MLongitudinal bends [QW-462.3 (b)]; ☐Side bends (QW-462.2) Transverse face and root bends [QW-462.3 (a)]; ☐ Pipe bend specimen, corrosion-resistant weld meta) overlay [QW-462.5(c)] Plate bend specimen, corrosion-resistant weld metal overlay [QW-462.5 (d)]; ☐ Pipe specimen macro test for fusion [QW-462.5 (b)]; ☐ Plate specimen macro test for fusion [QW-462.5 (e)]; Result Type Result Result Type Type ace CCCp7 KOOT HCCC07

Alternative radiographic examination results (QW-191)	
Fillet weld Fracture test (QW-181.2)	Length and percent of defects
☐ Fillet welds in plate [QW-462.4(b)]	Fillet welds in pipe (QW-462.4(c)
Macro examination (QW-184) Fil	let size (in.):XConcavity/convexity (in.):
Other tests	
Film or specimens evaluated by:	Company
Mechanical tests conducted by: IMR TesT	Laboratory Test Number
Welding supervised by Robert B Car	nptell
We certify that the statements in this record are correct and requirements of Section IX of the ASME Code.	that the test coupons were prepared welded and tested in accordance with the
	Manufacturer or Contractor
Date: 6/24/2010	certified by: Jim Andrews
	4

QW-484A — SUGGESTED FORMAT A FOR WELDER PERFORMANCE QUALIFICATIONS (WPQ) (See QW-301, Section IX, ASME Boller and Pressure Vessel Code))

Welders Name Jame I Martin Identification No.					
		Test Des	cription		•
Identification of WPS followed SS/Z/Y				Test Coupon Production weld	
Specification and type/grade or UNS number of base metal(s) Thickness:					
Testing Conditions and Qualification Limits					
	Welding Variables (Q	W-350)	G TA	values	Range qualified
Man				41	
Backing (with/without, metal, weld metal, double-welded, etc.)				л	2"-6"
Plate Pipe (enter diameter, if pipe or tube)			82"	0 8 -	8
Base metal P- or S-Number to P-or S-Number Filler metal or electrode specification(s) (SFA) (info only)					5.9
Filler metal or electrode classification(s) (Info only)					3046
Filler metal F-Number(s)					ND
Consumable insert (GTAVY OF PAVY)					50112
Filler type (solid/metal or flux cored/powder (GTAW or PAW) Deposit thickness for each process					
Process 1: GTAW 3 layers minimum Yes No					
Process 2: 674 & 3 layers minimum Yes No , 90					
Position qualified (2G, 6G, 3F, etc.) Vertical progression (uphili or downhill)					
Type of fuel gas (OFW)					
Inert gas backing (GTAW, PAW, GMAW)					Arsen
Transfer mode (spray/globular or pulse to short circuit –GMAW) GTAW current type/polarity (AC, DCEP, DCEN) DC 6			DCEA	, 	OCEN
The contract (popposite) (no, boar, boar)					
Visual Examination of Completed Weld (QW-302.4) Transverse face and root bends [QW-462.3 (a)]; RESULTS ACCEPT Side bends (QW-462.2)					
Pipe bend specimen, corrosion-resistant weld metal overlay [QW-462.5(c)]					
Plate bend specimen, corrosion-resistant weld metal overlay [QW-462.5 (d)];					
☐ Pipe specimen macro test for fusion [QW-462.5 (b)]; ☐ Plate specimen macro test for fusion [QW-462.5 (e)];					
Туре	Result	Туре	Result	Туре	Result
Root	ACCEPT	*	<u> </u>		
Alternative radiographic examination results (QW-191)					
Fillet weld Fracture test (QW-181.2) Length and percent of defects					
☐ Fillet welds in plate [QW-462.4(b)] ☐ Fillet welds in pipe [QW-462.4(c)					
Macro examination (QW-184) Fillet size (in.): X Concavity/convexity (in.):					
Other tests					
Film or specimens evaluated by: Company					
Mechanical tests conducted by: TMR TCST Lab 5 Laboratory Test Number					
Welding supervised by Robert B Campbell					
We certify that the statements in this record are correct and that the test coupons were prepared welded and tested in accordance with the requirements of Section IX of the ASME Code. Manufacturer or Contractor					
Date: 6/24/2010 Certified by: Jim Andrews					